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U.S. Army and Marine Corps Maritime Prepositioning: The Right Course For The 21st Century?

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"In the new style of war, superior logistics becomes the engine that allows American military forces to reach an enemy from all points of the globe and arrive ready to fight. Speed of closure and buildup naturally increases the psychological stature of the deploying force and reduces the risk of destruction to those forces that deploy first. In contrast, dribbling forces into a theater by air or sea raises the risk of defeat in detail."

Certain Victory: The U.S. Army in the Gulf War

**Office of the Chief of Staff,
United States Army, 1993**

**United States Army and Marine Corps
Maritime Prepositioning:
The Right Course for the 21st Century?**

INTRODUCTION

Forty years before the United States participated in the Gulf War and experienced an enduring lesson in the value of forward prepositioning, Rear Admiral Henry E. Eccles championed the future utility of advance "floating bases" in 1950 to support forward deployed forces where "the supplies, services and replacement of equipment.....are provided from auxiliary ships and craft based within an anchorage" (Eccles, Operational Naval Logistics 87). Despite the fact that Admiral Eccles and other leading logisticians from the World War II era proclaimed the importance of strategic logistics reach through advance positioning and forward floating bases, the defense establishment paid little attention to such concepts until decades later.

In support of the Gulf War, the U.S. Navy, Marine Corps and Air Force wrote a new chapter in the effective use of strategic logistics reach through the successful employment of advance "floating bases" in the form of Maritime Prepositioning Ships (MPS). This combined seabased and airlifted forward projected force provided an early, balanced air and ground combat capability that was fully interoperable with afloat Naval aviation as well as deploying Army and Air Force elements. The successes enjoyed by the employment of MPS during the rapid closure and initial buildup phases in Desert Shield served in stark contrast to the slower, "dribbling" theater delivery of other war materiel aboard Ready Reserve Fleet shipping. In the aftermath of the war, the rapid response of MPS moved Congress and the Department of Defense (DOD)

to examine the future strategic mobility requirements of the nation's armed forces with particular emphasis on the value of maritime prepositioning.

This examination took the form of the detailed DOD-sponsored Mobility Requirements Study (MRS) that was initiated in the fall of 1990 (Brown and Henderson, 11-13). Among the many strategic mobility enhancements recommended was the creation of an Army Afloat Prepositioning program. With strong support from the former Secretary of Defense Les Aspin, JCS Chairman General Colin Powell and Congress, the MRS maritime prepositioning recommendations were approved and funded. By the fall of 1993, the first Army Afloat Prepositioning ships were embarked with the initial equipment and supplies to support a lead heavy brigade that will probably be prepositioned in Southwest Asia.

As our nation approaches the 21st Century with new emphasis on post-Cold War defense "bottom-up" economic downsizings, several concerns should be addressed in reference to the duality of the Army and Marine Corps maritime prepositioning programs:

- **Mission/Sizing:** What is the basic mission of each respective program? Is each program sized correctly to meet the demands of the potential missions assigned?
- **Flexibility:** How much flexibility does each program possess to perform other missions (i.e., humanitarian, disaster relief, etc.)?
- **Complementary/Redundant Capabilities:** Does our current approach make sense for the introduction of joint

forces overseas? In view of operational and resource limitations are there other approaches which make more sense?

- **Future Viability:** What are the future challenges that each program faces? Will they remain a relevant military tool in the 21st Century? What economies could be produced to maximize their value to the nation?

In addressing each of these concerns, this paper presents a CINC and/or Joint Task Force Commander perspective on maritime prepositioning in that it contains: (1) an overview of the events leading to the inception of both prepositioning programs; (2) a review of their current missions and organizations; (3) an analysis of their complementary/redundant capabilities; and (4) a commentary with recommendations on how each may be improved to best serve our nation's interests into the next century.

INCEPTION TO MATURATION: MARITIME PREPOSITIONING CONCEPTS

The U.S. Army first applied the concept of maritime prepositioning on a limited scale in 1964 with the creation of a Forward Floating Depot (FFD) ship squadron that was configured to provide broad base support materiel support to a generic three brigade task force in the Pacific Ocean region (ASMP Briefing Papers, Apr 1993). The equipment and supplies from the FFD were utilized during the early days of the Vietnam War. In answer to the massive Warsaw Pact threat, the Army also initiated the successful Prepositioning of Organizational Material Configured in Unit Sets (POMCUS) program which achieved credibility in the 1970s with the prepositioning of forward land based materiel and supplies in Europe. Emphasis in the POMCUS program was placed on the land prepositioning of unit equipment and sets that could be immediately married to incoming combat units airlifted from CONUS. This concept was carried forth in the later development of maritime prepositioning programs.

In 1979 the United States and President Jimmy Carter received a jolting lesson in the importance of strategic reach when the world's leading superpower suddenly found itself incapable of projecting a credible forward presence in response to the Iranian hostage crisis and the Soviet Union's invasion of Afghanistan. In the aftermath, significant concerns were raised in regards to the nation's ability to effectively project adequate forces to retain open access to Middle East oil supplies.

These concerns led to the pronouncement of the "Carter Doctrine" in January 1980. The Carter Doctrine proclaimed that oil supplies in the Persian Gulf region represented a vital national interest. As a direct result the Rapid Deployment Joint Task Force was formed at MacDill Air Force Base near Tampa, Florida under the command of Marine General P.X. Kelley in February 1980. General Kelley's main task consisted of establishing a realistic, sustainable presence in the region that went beyond the existing capabilities resident in the carrier battle groups and amphibious forces (Summers, On Strategy II 88-90).

Answering the concerns of President Carter and the Defense Department, the Marine Corps Commandant, General Robert Barrow and General Kelley recommended that the void be filled with a prepositioned Marine Amphibious Brigade's (MAB) suite of equipment and 15 days of supplies embarked aboard existing Military Sealift Command shipping and berthed at Diego Garcia in the Indian Ocean. With the backing of Secretary of Defense Brown, the Near-Term Prepositioning Ships (NTPS) program was born. The NTPS grew to a squadron of eighteen ships by early 1982 that could support a MAB with 30 days of supply and provided Army and Air Force units with selected bulk supplies (Summers, 88).

The Marine Corps' portion of the NTPS program was later reconfigured and enlarged with the new Maritime Prepositioning Ships (MPS) program which entered service in 1984. The MPS program provided the Marine Corps with 13 modern contracted commercial roll-on/roll-off (RO/RO) cargo/container ships that were divided

into three squadrons (MPSRONS). Each of the three squadrons were embarked with sufficient equipment and supplies to support a Marine Expeditionary Brigade (MEB) of 16,500 personnel for 30 days. Today, MPS-1 is comprised of four ships which are based in the eastern Atlantic Ocean; MPS-2 with five ships is based in Diego Garcia; and MPS-3 configured with four ships is based in the Guam/Tinian area.

All three MPS squadrons were called into service during the Operation Desert Shield portion of the Gulf War. The 7th MEB was the first major Marine Corps unit to deploy to Saudi Arabia after the initial alert order was issued on 8 August 1990. Eight days after entering the air deployment flow, the brigade had offloaded the equipment and supplies from MPS-2 and had taken initial defensive positions in the northeastern Saudi desert, near the port of Al Jubayl (Naval Institute Proceedings Nov 1991:58). The arrival of the equipment and supplies on MPS-3 followed within two weeks of the MPS-2 offload at Al Jubayl. The Marine Corps MPS assets provided the primary allied armor capability in theater from mid-August thru late September 1990.

Throughout the 1970s and 1980s, the U.S. defense planning for Army force deployment centered on supporting NATO and their combat forces in Europe. Due to the type and size of rapid offensive attacks expected from the Soviet Union and its Warsaw Pact allies, EUCOM and Army planners placed their strategic lift emphasis on rapid personnel and logistics reinforcements arriving via strategic airlift. Outside of four prepositioning ships embarked with bulk supplies in Diego Garcia, the Army had placed its strategic sealift

dependence on the 96 ships comprising the Ready Reserve Fleet. During Desert Shield, the Army was faced with the daunting task of moving war materiel by sealift a total of 8,450 nautical miles (from the east coast of the United States to Saudi Arabia) compared to the 4,000 nautical mile trip endured from the east coast to Normandy in World War II (Association of the U.S. Army, "The Logistics Perspective", 1991:6).

Despite the fact that the Army was able to move over 2 million tons of cargo by sea (92 percent of the total delivered by all methods of strategic lift), general dissatisfaction over the performance and availability of strategic sealift was expressed by Army general officers at the conclusion of the war. The Ready Reserve Fleet experienced numerous delays because some ships had deteriorated due to prior year cutbacks in maintenance funding and all faced the general problem of manpower in the form of qualified, able bodied crews. The mean activation time for Ready Reserve Fleet vessels was 11 days ("The Logistics Perspective", 1991:7). The reality that a future conflict in Southwest Asia or other inaccessible parts of the globe might not allow for a six month logistic buildup as Desert Shield afforded and the accomplishments of the Marine Corps' MPS was not lost on senior Army officers and their logistics planners:

"Sealift is the weakest link in today's global bridge. Not only are there too few high-speed ships, but experience in Desert Shield indicates that maritime forces must become far more responsive, flexible and accommodating if heavy Army forces are to close quickly in theater in shape to fight. The 24th Division would have found it very difficult to fight on arrival in ad-Dammam had they loaded to maximize efficiency or had they adhered to established regulations and

procedures intended for a NATO-like contingency prior to departure. As our Army is increasingly based in the United States, more fast sealift ships are needed. At the same time we must modernize our "fort to port" infrastructure to handle the demands of a crisis-response Army-----The concept depends for success on strategic stockpiles of bulk items such as ammunition, both in POMCUS sites overseas and afloat aboard maritime prepositioned ships." (U.S. Army, Certain Victory, 376)

Under a mandate established by Congress, the Department of Defense conducted the Mobility Requirements Study (MRS) in the fall of 1990 to determine the future strategic mobility requirements of the armed services and to develop a comprehensive plan to meet those needs. The participants in the study included the Office of the Secretary of Defense, the Joint Staff, all Service Headquarters and the U.S. Transportation Command and its component commands: the Military Sealift Command, Air Mobility Command and Military Traffic Management Command("Mobility Requirements Study", HQMC Top Level School Reference Papers, May 1993).

Volume I of the MRS was completed on 23 January 1992 and included the study of intertheater mobility, CONUS infrastructure and supporting sealift requirements. In view of the Army's Gulf War experiences and the coming reduction of ground military presence overseas, the study recommended the acquisition of 20 Large, Medium Speed Roll-On/Roll-Off (LMSR) ships, 23 modernized commercial Roll-On/Roll-Off vessels and the retention of eight Fast Sealift Ships (FSS) to support the requirements of the "crisis-response" force (ASMP Briefing Papers, Apr 1993). The study also recommended the creation of a "gap filler" force for rapid response in a crisis situation to make way for additional follow-on heavy forces. The

gap filler force would introduce a heavy (mechanized) force in theater by C+14. In a radical departure from traditional Army use of strategic sealift, the MRS established the requirement for an Army Afloat Prepositioning Program to meet the gap filler role that will ensure the placement of a lead prepositioned Army Heavy Brigade (with war materiel embarked aboard eight of the new LMSR vessels and eight auxiliary ships) on the ground by C+4 (four days after the deployment flow begins) (ASMP Briefing Papers, Apr 1993). These MRS recommendations were approved and funded (\$3.1 billion) after receiving strong backing from both the Bush and Clinton administrations and Congress.

As an adjunct to the MRS, the Army developed the Army Strategic Mobility Plan (ASMP) which sets forth the future mobility objective of their largely CONUS-based force: to deploy a sustainable Corps of five divisions anywhere in the world in 75 days, with the first three (two of which are heavy divisions) arriving within 30 days. The keystone of this Corps deployment concept is the early arrival of the heavy brigade which is prepositioned afloat (MPS/PREPO AFLOAT Symposium, MCU 19 Jan 1994).

The United States will thus enter the 21st Century with dual Army and Marine Corps maritime prepositioning programs which will produce both complementary and redundant capabilities. The questions that will remain in the future for joint strategic planners, logisticians, and the individual CINCs is how and where each maritime prepositioning program can best "fit" and be utilized to bring the necessary force to bear in a response to a crisis.

THE MARINE CORPS MARITIME PREPOSITIONING SHIPS PROGRAM

"Yes, MPS did fill the gap---without question. The 7th MEB was the first force on the ground that offered a credible defense against mechanized attack. The Army airborne troops who got there first were good, but were too lightly armed and supplied to stop tanks for very long. The quick arrival of the 7th MEB and the MPS squadron must have put Saddam Hussein on notice that our President was serious about defending Saudi Arabia, for openers."

LTGEN Walter E. Boomer, USMC
Naval Proceedings, November 1991

MISSION: Since its inception, the Marine Corps has viewed its Maritime Prepositioning program as a strategic deployment option with the main mission of rapidly combining the substantial prepositioned stock of equipment and supplies aboard the ships of one the three MPSRONS with the airlifted manpower of a Marine Expeditionary Brigade (MEB) to establish a formidable force capable of sustained operations for 30 days anywhere around the globe without replenishment. Upon arrival in theater (the arrival and assembly phase) the MEB can complete offload of essential equipment and be declared ready for combat in as little as 7 days. This Maritime Prepositioning Force (MPF) of 16,500 personnel can:

- Conduct both ground and air operations interoperable with joint forces deployed in theater before or afterwards
- Reinforce an amphibious operation
- Occupy/reinforce advance naval bases
- Occupy and defend along key lines of communication
- Support an ally or friendly nation through forward presence
- Send a political/diplomatic signal

- Establish a sizable force in support of a sustained operation ashore
- Provide humanitarian/disaster relief

MPF operations and amphibious operations are complementary Marine Corps capabilities. Amphibious operations provide the means for forcible entry, while MPF operations provide the capability to rapidly deploy to areas where force introduction is unopposed (i.e. Desert Shield) through the initial stages of the arrival and assembly phase.

As proven during the Gulf War, the MPF capabilities directly contribute to two of the four main components of set forth in the National Military Strategy (Strategic Deterrence and Defense, Forward Presence, Crisis Response and Reconstitution):

- Forward Presence: The 3 MPSRONS are strategically deployed around the world and stand ready to be linked with an airlifted MEB within days. This capability demonstrates depth in U.S. strategic reach, reinforces alliances and commitments with other nations and enhances regional stability.
- Crisis Response: The MPF capabilities offer the nation a quick and credible method to respond to a crisis situation. Whether a "show the flag" presence or actual combat forces are required, the MPF is capable of tailoring the correct response in reaction to any number of regional crises to include humanitarian relief missions ("Maritime Prepositioning Force", HQMC Top Level

COMBAT UNIT SIZE AND EQUIPMENT: The notional MPF MEB is comprised of a Regimental Landing Team (RLT), a composite Marine Aircraft Group (MAG), and a Brigade Service Support Group (BSSG). When combined with the Naval Support Element (NSE) which supports the offload of the MPS ships and the fixed and rotor MAG assets that are airlifted or flight ferried in, the Marine forces can project a fully combat capable Marine Air Ground Task Force (MAGTF) of 16,500 personnel anywhere on the globe within 10 days. When employed the MPF MEB may utilize the following major items of equipment already prepositioned aboard each of the three MPSRONS:

Ground Combat Equipment:

30	M1A1 Tanks
109	Amphibious Assault Vehicles
25	Light Armored Vehicles
72	TOW Carrier Trucks
30	Howitzers, Medium M198

Aviation Combat Equipment: (Notional Composite)*

24	F/A-18 Fighter/Attack Aircraft
20	AV-8 Harrier V/STOL Attack Aircraft
12	CH-53E Super Stallion Helicopters
12	CH-46 Sea Knight Helicopters
12	UH-1 Helicopters
12	AH-1W Super Cobra Attack Helicopters
6	EA-6B Prowler EW Aircraft
6	KC-130 Hercules Aerial Refuelers
45	Stinger Air Defense Teams
6	HAWK Missile Launchers

*Fixed and Rotor Wing Aircraft are Flight Ferried to Area of Operations

General Ground/Aviation Support:

1200+	Stationary/Mobile Radio Sets
14	Rough Terrain Cargo Handlers, 50K
8	25 Ton Drott Crane
8	600K Amphibious Asslt Fuel Systems
320+	Mobile Electric Power Generators
6	Road Graders
2	Runway Sweepers
17	D7G Caterpillar Tractors
100+	Forklifts (10K, 6K and 4K models)
41	Reverse Osmosis Water Purifier Sets
1500+	Tents
8	Helicopter Expedient Refuel Systems
1100+	Light, Medium and Heavy Trucks
2	Field Hospitals (120 and 60 beds)
1	Aviation IMA (Maintenance) Facility (Embarked aboard Aviation Logistics Support Ship (TAVB))

In addition, each MPSRON is also prepositioned with 30 Days of Supply (DOS) in all DOD supply categories (USMC, Concepts and Issues 93, 105).

OPERATIONAL FLEXIBILITY: Since Operation Desert Storm, the Marine Corps has utilized the MPF capabilities to support two minor and one major humanitarian relief operation. In both Operation Water Pitcher (Chuuk Islands, Pacific Ocean) and Typhoon Omar (Guam) relief operations the prepositioned MPS engineer assets (mobile electric power generators, water purification units, etc.) proved their worth in restoring a basic quality of life. In Operation Restore Hope, the rapid partial MPS offload of combat and combat service support equipment enabled joint U.S. task forces to quickly assemble a credible presence on the ground in Somalia and begin application of humanitarian aid (USMC, Concepts and Issues 93, 48).

In early 1991, MPS planners devised what were called "Crisis Action Modules" (CAMs) that invoked a method in which MPS ships from each squadron would be embarked with certain sets or modules of equipment and supplies (i.e., water purification sets, generators and Meals-Ready-to-Eat) that provided specific tools to be offloaded by exception to meet unique missions such as humanitarian operations without degrading the overall MPF MEB capabilities. Currently, these CAMs are known as Force Modules, but the basic concept remains the same with each MPSRON being embarked with specific sets of equipment and supplies that can be selectively offloaded to support humanitarian operations, short term Marine Expeditionary Unit (MEUs with less than 2,500 personnel) operations, and low intensity conflicts requiring less than the full MPF MEB deployment. The Marine Corps sees the concept of Force Modules as a method that will make the MPS strategic tool become more "CINC-friendly" when a crisis response is required.

MAINTENANCE CONCEPT: All Marine Corps MPS maintenance is conducted at the port of Blount Island (Jacksonville), Florida where each of the thirteen ships rotate in approximately every thirty months to completely offload their cargo and undergo scheduled maintenance along with a rigid Coast Guard hull examination/certification process for seaworthiness. The Marine Corps equipment and supplies are replenished, refurbished or replaced by Marine Corps logistics personnel and contracted civilians. The Class V ordnance items are shipped by rail to Naval Weapons Station, Charleston, South

Carolina where individual stocks are checked for serviceability and replenished. The entire process lasts for 42 to 45 days per ship and is called the MPS Maintenance Cycle (MMC). The MMC is managed by the Commanding Officer, Blount Island Command who is directly responsible to the Commanding General, Marine Corps Logistics Base, Albany, Georgia.

The major MPS maintenance concern for the Marine Corps lies in use of the Blount Island facility into the next decade. In 1985 the Marine Corps formally leased the Blount Island port facility thru year 2005 from the Gate Petroleum Company (Interview w/Major Lavigne, HQMC Feb 94).

Since that time the civilian companies/corporations and the Jacksonville Port Authority that share the geography of Blount Island have enjoyed an economic boom period. Access to roads and facilities have increasingly become more congested and ground space is held at a premium. In this period of economic defense downsizing it is doubtful that the Marine Corps can enter into any future long term negotiated lease or purchase agreement with Gate that can compete with the lucrative commercial prices which the property will certainly demand by the next century.

FUTURE CHALLENGES: The Marine Corps faces two challenges that are key to the survival of the MPS program as a realistic strategic deployment option through the beginning of the 21st Century:

1. **Reduced Dependence on Leased Assets:** As discussed in the previous section on maintenance, the Blount Island Command port facility is leased through year 2005. The 13 commercial RO/RO ships comprising MPS are also leased from three separate sources. The ships' leases will individually expire beginning in 2009 through 2011 (Interview w/Major Lavigne, HQMC Feb 1994). It is surmised that operational expediency took precedence over vision in converting the old NTPS concept to a economical MPS leased-based program in the early 1980s; however, the current and future constraints placed on the defense budget does not bode well for massive expenditures to renew leases or purchase multimillion dollar acreage and ships. The Marines must aggressively search for a long term solution that will either lead to ownership of current assets or more forcefully restate their future MPS requirements as a late appendix to the MRS.

2. **Enhancement of MPF Capabilities:** The current capabilities of MPF can significantly be enhanced if **one** additional ship is added to each of the three MPSRONs. As portrayed in the Marine Corps' Concepts and Issues '93 edition and presented in several JCS briefings, current MPF MEB lift capacity in the form of MPS sealift and strategic airlift can no longer satisfy the growth of the MEB's embarkation footprint. The addition of one ship would not only satisfy those requirements, but also allow for an overall

enhancement of MPF. The first major enhancement would be the addition of 28 M1A1 Tanks that would bring MPF capabilities back to pre-Desert Shield tank battalion (-) strength with a total of 58 per MPSRON. The second major enhancement would be the embarkation of the Expeditionary Airfield 2000 which could provide for a 5,000 foot runway or a 3,840 foot runway with ramp space for 78 aircraft. In addition, room would remain for a Navy Mobile Construction (Seabees) package that could provide for rapid buildup in the form of vertical/horizontal construction, road/runway emplacement and repair and well drilling. Finally, that one additional ship could also provide the space for a Naval Fleet Hospital with a capacity of up to 500 beds (USMC Briefing Papers, 13 Dec 93).

Many Marines feel that this enhancement of MPF would meet the aforementioned MRS requirement for a "gap filler" force at a significant savings with the additional M1A1 tanks meeting the heavy combat force requirement (USMC, Concepts and Issues 93, 33). Like any other major weapons system, the MPF capability cannot be allowed to stand pat and suffer atrophy. Once again, the Marines must initiate a persuasive dialogue with the powers resident in Washington, D.C. if the MPF capability is to be enhanced. To do less could relegate the MPF to an "also ran" strategic deployment option in the 21st Century.

THE ARMY AFLOAT PREPOSITIONING PROGRAM

"The Army must provide a Corps of five divisions that is tailorable, sustainable, and with airborne, vertical insertion capability. The lead brigade must be on the ground by C+4, the lead division by C+12. Two heavy divisions (sealifted) arrive from CONUS by C+30 (armored, mechanized, air assault, mix per CINC). The full Corps (five divisions and a COSCOM) closes by C+75. A fully supported heavy combat brigade, with sufficient supplies to sustain the Corps until lines of communication are established, must be prepositioned afloat."

The Army Position,
The Army Strategic Mobility Program
Information Briefing, June 1993
Headquarters, Department of the Army

MISSION: In early 1991, the Chief of Staff of the Army, in testimony before Congress first pronounced what the new Army strategic mobility capability and requirements should be in meeting the demands of future regional conflict. The above "Army Position" evolved with the Army citing maritime prepositioning as a key ingredient in their future ability to rapidly project power (ASMP Briefing Papers, June 1993). As framed in the Army Strategic Mobility Program study, the Army Prepositioning Afloat (PREPO AFLOAT) Program will allow for the early introduction of a heavy combat brigade (two armor battalions and two mechanized battalions with required support) to be established in theater as the lead combat element of a five division Army Corps. The overall goal calls for this lead heavy brigade to be operational within four days or less after offload of the PREPO AFLOAT ships commences and forces are married with the prepositioned equipment and supplies. Like the Marine Corps MPS program, the PREPO AFLOAT operations will be based upon the concept of flying the brigade personnel in

theater via strategic airlift and meeting the prepositioned ships to begin the arrival and assembly phase. The PREPO AFLOAT Heavy Brigade with a tailored force of anywhere from 6,000+ to 1,000 soldiers and 15 days of prepositioned sustainment support can:

- Augment an amphibious deployment or operation
- Occupy or augment an advanced lodgement
- Establish a blocking or delaying position for both offensive and defensive operations
- Reinforce an ally with a credible force prior to hostilities, and sustain relations with allies and coalition partners through routine exercises and operations
- Establish a sizeable combat force to enable closure of additional forces and to support the theater commander's campaign
- Provide a rapid peacetime response in support of operations other than war
- Provide economy of force through reduction of strategic airlift requirements (U.S. Army HQ, Training and Doctrine Command, Draft of AR-3 Army Prepositioned Afloat)

The purpose of a PREPO AFLOAT operation is to "rapidly reinforce a lodgement established by Army early entry forces and/or by USMC amphibious assault elements (e.g., an Army Light Division or a Marine Air Ground Task Force) and be prepared to conduct subsequent operations across the range of military operations" (Draft, AR-3 Army Prepositioned Afloat, 1-1 thru 1-9).

As in the case of the Marine Corps' MPF, Army PREPO AFLOAT forces will contribute to two of the four main components of the National Military Strategy: Forward Presence and Crisis Response.

COMBAT UNIT SIZE AND EQUIPMENT: The Army PREPO AFLOAT forces (designated as Army Reserve-3 or AR-3) represent a new warfighting capability centered around a heavy brigade. The AR-3 Heavy Brigade will draw the majority of its sustaining combat, combat support (CS) and combat service support (CSS) equipment and supplies from the PREPO AFLOAT ships. As stated before, the AR-3 Heavy Brigade will be comprised of two armor battalions and two mechanized battalions entering a theater with the capability to be tailored to meet a multitude of individual CINC requirements. The Army projects that the AR-3 Heavy Brigade will be on the ground and combat capable by C+4 (4 days after the deployment flow begins). When employed the AR-3 Heavy Brigade may utilize the following major items of equipment/capabilities prepositioned aboard the PREPO AFLOAT ships:

Ground Combat Equipment:

123	M1A1 Tanks
154	Bradley Fighting Vehicles
24	Self-Propelled Howitzers (155MM)
9	Multiple-Launch Rocket Systems
344	Misc. Track Vehicles
1	Air Defense Artillery Battery (-)

General Ground CS/CSS Capabilities:

Heavy/Medium Ground Transports: 2,352 Wheeled Vehicles
 1,273 Trailers
 Ammunition Handling/Distribution
 Engineer Combat/Services Support
 POL Storage/Distribution
 Supply Storage/Distribution
 Port Opening/Construction
 300 Bed Field Hospital

In addition, the PREPO AFLOAT ships are prepositioned with 15 Days of Supply (DOS) (Army ASMP Briefing Papers, Feb 1994).

OPERATIONAL FLEXIBILITY: In order to maximize operational flexibility, decrease initial operational friction and improve deployability, the PREPO AFLOAT ships will be configured to support four basic force modules:

- Force Module "D": Force structure, equipment and sustainment to provide support for initial port opening for small humanitarian missions.
- Force Module "C": Force structure, equipment and sustainment to provide support for minimum port support for major peace enforcing and humanitarian missions.
- Force Module "B": Force structure, equipment and sustainment to provide support for limited port support operations for small regional contingencies.
- Force Module "A": Force structure, equipment and sustainment to provide support for full port support operations for major regional contingencies (Draft, AR-3 Army Prepositioned Afloat, 1-5 and 1-6).

As in the case of a Marine Corps MPF operation, "a PREPO AFLOAT operation can consist of one ship and appropriate sized elements of the brigade, or at the other end of the scale all the PREPO AFLOAT vessels" (Army ASMP Briefing Papers, Feb 1994). This force module concept is certain to make the Army PREPO AFLOAT competitive with the Marine's tailored MPF force modules when the time arises for a CINC to choose the prepositioned force (or combination of forces) to best meet his crisis response needs.

MAINTENANCE CONCEPT: The Army PREPO AFLOAT maintenance will be conducted at existing U.S. Navy facilities in Charleston, South Carolina. The Army logistics planners evidently learned from the difficulties encountered by the Marine Corps at Blount Island, Florida in choosing the site because it offers the advantages of low life cycle cost, the permanent use of government-owned facilities, growth potential on Department of Defense property and the utility of working major ammunition replenishments on site without additional safety waivers (Army ASMP Briefing Papers, Feb 1994).

The Army Materiel Command (AMC) will be responsible for the management and accountability of all equipment and supplies (less Class VIII). AMC will initially procure, assemble, package and embark all PREPO AFLOAT stocks. When the PREPO AFLOAT ships enter their prescribed maintenance cycles (to begin in 1996) the AMC will also coordinate the offload, replenishment/replacement and repair of all items (Army Magazine, Jan 1994, 51).

Unlike the Marine Corps, the Army will enjoy the advantage of moving forward into the 21st Century with a government-owned maritime prepositioning maintenance facility that is unhindered by competing commercial growth and congestion.

FUTURE CHALLENGES: In the near term, the Army PREPO AFLOAT program will face one significant challenge that will affect its composition and utility from present day thru the beginning of the 21st Century-----**attainment of a clearly defined role as a maritime prepositioning force.**

Even though the Army positively views PREPO AFLOAT's Heavy Brigade as the "gap filler" force in answer to those requirements identified in the Mobility Requirements Study, they also admit to limitations involved in employing a heavy brigade:

- Dense jungles and forests, steep and rugged terrain and prominent water obstacles restrict mobility.
- Urbanized terrain restricts maneuver.
- Large numbers of heavy equipment restricts strategic mobility.
- The heavy brigade consumes an inordinate amount of supplies (especially Classes III, V and IX).
(Draft, AR-3 Army Prepositioning Afloat, 9-2)

In the future, individual CINC planners will most certainly be looking for less than the heavy "gap filler" capability in those cases that require either a smaller contingency combat force or humanitarian/peacekeeping forces. It is crucial that the Army successfully prove (through actual operations and exercises) that PREPO AFLOAT forces are flexible and quick enough to transition from the heavy brigade force module combat set to a smaller, more conventional, utilitarian force. To do less could cause many to view PREPO AFLOAT as a heavy, "one dimensional" strategic option.

JOINTNESS: THE RIGHT COURSE FOR THE 21ST CENTURY?

Much conjecture abounds within the confines of the Pentagon and Congress on whether or not the proponents of the new Army AFLOAT PREPO and the Marine Corps MPS programs have sowed new fertile ground for another time-honored armed services roles and missions battle. The programs share major capabilities that are both redundant and complementary:

<u>CAPABILITY</u>	<u>ARMY</u>	<u>USMC</u>
Force Modules:		
Major Regional Conflict	X	X
Smaller Contingencies	X	X
Humanitarian Operations	X	X
Port Opening Operations	X	
Air Combat Element (Fixed/Rotor)		X (+TAVB)
Heavy Armor Emphasis	X	
Sustainment	15 DOS	30 DOS

The Army and Marine Corps possess strong maritime prepositioning capabilities that can both project a rapid American forward presence that in the past was impossible to attain. Both prepositioning programs also have certain weaknesses previously discussed that could hamper their future effectiveness. The Army faces the awesome task of moving PREPO AFLOAT towards the operational starting blocks while the Marine Corps searches for fiscally sound solutions in their efforts to rebuild a credible prepositioned armor capability and resolve their MPS leased asset problems. Despite these facts senior operations planners from both

services are clearly depending on the speed and flexibility of maritime prepositioning to provide the initial combat edge in future conflicts.

At recent National Defense University appearances, both the Chief of Staff of the Army and the Commandant of the Marine Corps stressed the importance of jointness in combat operations and operations other than war. In this era of shrinking national resources, downsized defense budgets and worldwide regional turmoil, it would seem prudent for both services to unite and provide our nation with the best that this unique strategic deployment option has to offer. With billions of dollars already invested, the Army and the Marine Corps should jointly pursue a course of mutual cooperation and planning that will yield the most responsive yet economical maritime prepositioning program that will best serve the nation's interests in the 21st Century. The recommendations listed below are offered as to how this might be accomplished:

*** Creation of a Joint Maritime Prepositioning Command:** Just as the CINCs coordinate all operational and logistical planning for their respective regions of the world, the senior commander of the Joint Maritime Prepositioning Command would coordinate all such planning as it applies to both the Army and Marine Corps programs. The commander (a Major General equivalent) would be located at the designated maintenance site and be responsible for all maintenance (equipment and supplies) and shipboard repairs as necessary. The

command would be staffed with the "best and brightest" Army and Marine Corps operators and logisticians who are experienced in the art of warfare and prepositioning. This command would also provide a small forward deployed "enabling cell" comprised of prepositioning offload specialists that could rapidly close with the CINC's planners in the theater to optimize the use of prepositioned assets.

*** Development of Joint Operational Prepositioning Plans:** Under the aegis of the Joint Prepositioning Command, operational planners from both services could draw from the individual strengths of their programs to provide the CINCs with the best prepositioning solutions to their individual forward presence problems. A situation that requires less than a full prepositioning response (e.g., disaster/humanitarian operations in typhoon ravaged Bangladesh or the peacekeeping/humanitarian operations in Somalia) is more likely to require a U.S. response in the future than a full blown MRC like Desert Storm. An example of how such joint planning would enhance U.S. forward presence can be found in the case of a low intensity Third World peacekeeping mission which could combine the rapid forward presence of a Marine Expeditionary Unit (MEU) to establish initial order using a Force Module from MPS together with the Army port opening prepositioned capabilities to allow for the introduction of additional combat power as required. Our nation would benefit from the strengths of both programs and enjoy an overall economy in the application of prepositioned forces.

*** Creation of a Joint Prepositioning Maintenance Facility:** With the new Army facility being established at an existing government-owned facility (naval base) in Charleston, South Carolina the powers within the Pentagon should demonstrate economic common sense and relocate the Marine Corps with the Army by 2005 (termination of the lease at Blount Island). MPS maintenance functions at Blount Island could be slowly phased out and transferred to the Charleston facility over the next ten years. As discussed earlier, the Charleston facility offers all the advantages of government ownership (i.e., room to expand, existing long term ordnance handling waivers, etc.) with none of the headaches associated with a congested commercial facility. A joint facility would also allow for major economies to be enjoyed in the area of ground equipment maintenance where the Army and Marines share a large number of common requirements. The Army is planning over 52 million dollars worth of facility improvements to the Charleston site between now and FY98 (Army ASMP Briefing Papers, Feb 1994). A prudent joint move would be to plan and fund for the addition of Marine Corps facilities at Charleston between now and 2004.

*** Enhancement of Both Prepositioning Programs for Joint Complementary Support:** As previously discussed, the Marine Corps can project a much improved capability in terms of warfighting and combat service support strength with the addition of a single RO/RO ship to each MPSRON. This proposed enhancement would be of

particular value in the "two MRC" scenario widely advertised in the Bottom-Up Review with the addition of the 28 M1A1 tanks per ship and the provisioning of extended aviation runway capabilities. With such an enhancement, the Marine Corps could combine two MPSRONS to provide 116 M1A1 tanks and a capability to establish two major fixed/rotor wing sites to complement the Army PREPO AFLOAT Heavy Brigade. The Army should also move forward to enhance a true heavy armor capability aboard PREPO AFLOAT with the addition of 60 to 120 M1A1 tanks in lieu of other types of mechanized vehicles. A sizeable Army 3+ battalion tank force would seem to be of greater joint warfighting value in a worst case "two MRC" scenario than one with only two battalions. Logistically, the Army must: (1) enhance PREPO AFLOAT sustainment from 15 DOS to 30 DOS if the Heavy Brigade is to fight effectively in scenarios where massive amounts of fuel, ammunition and water could be consumed in a matter of days (as was witnessed in the Israeli-Arab War of 1973) and (2) enhance port opening/terminal buildup capabilities with additional quantities of material handling and earthmoving equipment that will provide incoming Army Corps Support Command (COSCOM) units, Navy Cargo Handling and Port Groups (NAVCHAPGRUs) and Air Force elements with a significant head start in the rapid establishment of bases for follow-on sustainment in theater. Given that a maritime prepositioning offload of equipment and supplies requires a benign environment and the Marine Corps already possesses an introductory lodgement and defensive capability resident in the three MPSRONS, an enhanced Army port opening equipment package would better serve

the immediate needs of a joint task force attempting to buildup and expand a logistics foothold. The early provisioning of adequate Army PREPO AFLOAT combat service support with its unique port and terminal capabilities may well be recognized as being more valuable to the success of future maritime prepositioning operations than the combat equipment embarked aboard.

The key to future improvements in both prepositioning programs resides in the abilities of the Army and Marine Corps to put service rivalries aside and actively seeking joint opportunities for innovative collaboration that will enhance warfighting capabilities and serve the nation's best interests. As Admiral Eccles explained in Operational Naval Logistics 44 years ago: "The desirable flexibility and economy of floating base operations can only be obtained as the result of sound planning done years beforehand at national and departmental levels."

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